

REMARKS

Claims 35-48 are pending in the current application. Claims 35-48 currently stand rejected. Reconsideration and allowance of claims 35-48 are respectfully requested in light of the following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 35-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over publication “CPW for SIMULATE-3” by Kevin O’Sullivan contained in the “Update ...” newsletter (“O’Sullivan”) in view of US Pat 5,414,809 to Hogan et al. (“Hogan”) and US Pat 5,923,717 to Fawks (“Fawks”). This rejection is respectfully traversed for the reasons detailed below.

With regard to claims 35, the Examiner applies Fawks to teach “the graphical user interface populating the **graphical loading map** according to the input at least one fuel attribute and at least one corresponding attribute of the nuclear fuel bundles” by Fawks’ discussion of placing fuel bundles within a core simulator based on reactivity values. Applicants respectfully submit that Fawks does not populate a “**graphical loading map**” with fuel bundles. Rather, Fawks discloses movement of bundles into **a computer simulation** for an internal determination of core constraint violations and bundle shuffling within core locations. See Fawks, Col. 3, ll. 63-65. Nowhere does Fawks indicate that its populating process is ever graphically represented or otherwise displayed. Moreover, it is not clear how Fawks could be operably coupled with a graphical loading map in O’Sullivan to meet this claim element or what would motivate the skilled artisan to attempt to do so; Fawks is silent with regard to

how or when its fuel bundle locations are ever displayed graphically. See Fawks, Col. 2, l. 63 – Col. 3, l. 8 (describing computer implementation with no display); Col. 5, ll. 34-37 (describing final result with no display). Thus, Fawks does not teach the populating the graphical loading map recited in claim 35.

With regard to claims 35 and 42, the Examiner applies Hogan for teaching “loading tools within the graphical user interface graphically sorting, filtering, or moving graphical fuel bundles,” applies Fawks for teaching that the tools sort, filter, or move the bundles into the core “based on the at least one fuel attribute of the fuel bundles represented by the graphical fuel bundles,” and applies O’Sullivan for teaching that **“the at least one fuel attribute” used as the move/filter/sort basis is input into a graphical user interface.** Applicants respectfully submit that O’Sullivan does not teach the bolded element for which it is applied, and, moreover, the references cannot be so finely dissected and reassembled to teach the recited loading tools and their functionality under § 103.

“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” KSR, Int’l v. Teleflex, Inc., 550 U.S. 398 (2007). Under this reasoning, it “is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciated of what such reference fairly suggests to one skilled in the art.” In re Wesslau, 353 F.2d 238, 241 (C.C.P.A. 1965). None of the applied references can be

stitched together in the manner proposed by the Examiner without a very detailed set of operation instructions provided only by the present claims in hindsight. Specifically, Hogan teaches only a generic move tool without any suggestion of how the tool could be fashioned to discriminate based on input fuel bundle attributes when populating the core. See Hogan, FIG. 9, arrow element. Fawks, as discussed above, teaches computer-implemented loading and shuffling with no indication how any graphical elements, let alone graphical tools, could be implemented in its automatic simulator populating. Where O'Sullivan teaches user input to rotate symmetric bundles, **the symmetric attribute of the fuel bundles is not input into the graphical user interface**, nor is there any suggestion that the rotation tool can be used on bundles being moved into the core. See O'Sullivan, p. 1. Thus, O'Sullivan lacks any inputting of a fuel bundle attribute, and none of the references suggest or even permit the precise surgery performed by the Examiner to meet the graphical tool elements of claims 35 and 42.

Because O'Sullivan, alone or in combination with Hogan and Fawks, fails to teach each and every element of claims 35 and 42, and cannot be combined under § 103 without using impermissible hindsight, these references cannot anticipate or render obvious claims 35 or 42. Claims 36-41 and 43-48 are allowable at least for depending from an allowable base claim. Withdrawal of the rejection to claims 35-48 under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 35-48 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Ryan Alley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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